ABSTRACT

This invention relates to a method and apparatus for improved process control in combustion applications, and particularly those relating to the steelmaking industry. An apparatus is provided for process control in a combustion application comprising a laser to transmit a near-infrared laser beam through off-gas produced by the combustion application, a detector to detect the transmitted laser beam and convert the detected laser beam to an electrical signal, and a control system for providing adjustment of select inputs to the combustion application in response to the electrical signal from the detector. The method of this invention comprises transmitting a near infrared laser beam through off-gas produced by the combustion application, detecting the transmitted laser beam, and adjusting select inputs of the combustion application in response to the detected transmitted laser beam.